## **ABSTRACT**

[Problem] It is an objective of the present invention to provide a decontaminant capable of efficiently and rapidly decontaminating soil, groundwater or sediment contaminated with hexavalent chromium, and a decontamination method utilizing the same. [Means to Solve the Problem] By adding at least one of iron (0) and ferrous iron, and a microbial biostimulant of at least one member selected from the group consisting of yeast extract, inactive yeast, active yeast and peptone to soil, groundwater or sediment contaminated with hexavalent chromium. Hexavalent chromium is chemically and biologically reduced efficiently, and iron reducing microorganisms are propagated and activated to sustain reducing power of the added iron over a long period of time.